

WHAT IS CLAIMED IS:

5

10

- 1. A method for rapid detection of at least a first carbohydrate in a carbohydrate-containing sample molecule comprising the steps of:
 - (a) retaining said sample molecule on a region of one liquid permeable reaction membrane,
 - (b) flowing a solution first lectin, capable of binding said first carbohydrate, through said one reaction membrane to selectively bind said first lectin to said retained first carbohydrate, said lectin being directly conjugated to a label prior to binding to the carbohydrate or being bound to a label on a separate molecule after binding of said first lectin to said carbohydrate,
 - (c) thereafter, detecting said label bound to said one reaction membrane, indicating the presence of said first carbohydrate.
- The method of Claim 1 in which said reaction membrane includes an
 immobilized receptor capable of binding said sample molecule, and said sample molecule is retained on said reaction membrane by binding to said immobilized receptor.
 - 3. The method of Claim 2 in which said immobilized receptor comprises a second lectin of the same type as, or a different type from, said first lectin.
- 20 4. The method of Claim 3 in which said second lectin is a different type from said first lectin.
 - 5. The method of Claim 1 in which said reaction membrane is washed between steps (b) and (c).
- 6. The method of Claim1 in which said detection is quantitatively performed using an optical analyzer.



- 7. The method of Claim 1 in which said sample molecule is retained on at a second discrete region of said one reaction membrane of a second liquid permeable reaction membrane and the procedure of Claim 1 is repeated using at least a labeled second lectin of a different type than said first lectin and capable of selectively binding a second carbohydrate of said sample molecule.
- 8. The method of Claim 1 performed in less than about 1 hour.

5

- 9. The method of Claim 1 in which said separate molecule comprises avidin and said first lectin is conjugated to biotin.
- 10. The method of Claim 1 in which said separate molecule comprises biotin and said first lectin is conjugated to avidin.